

Results from the Fall Midwater Trawl Survey

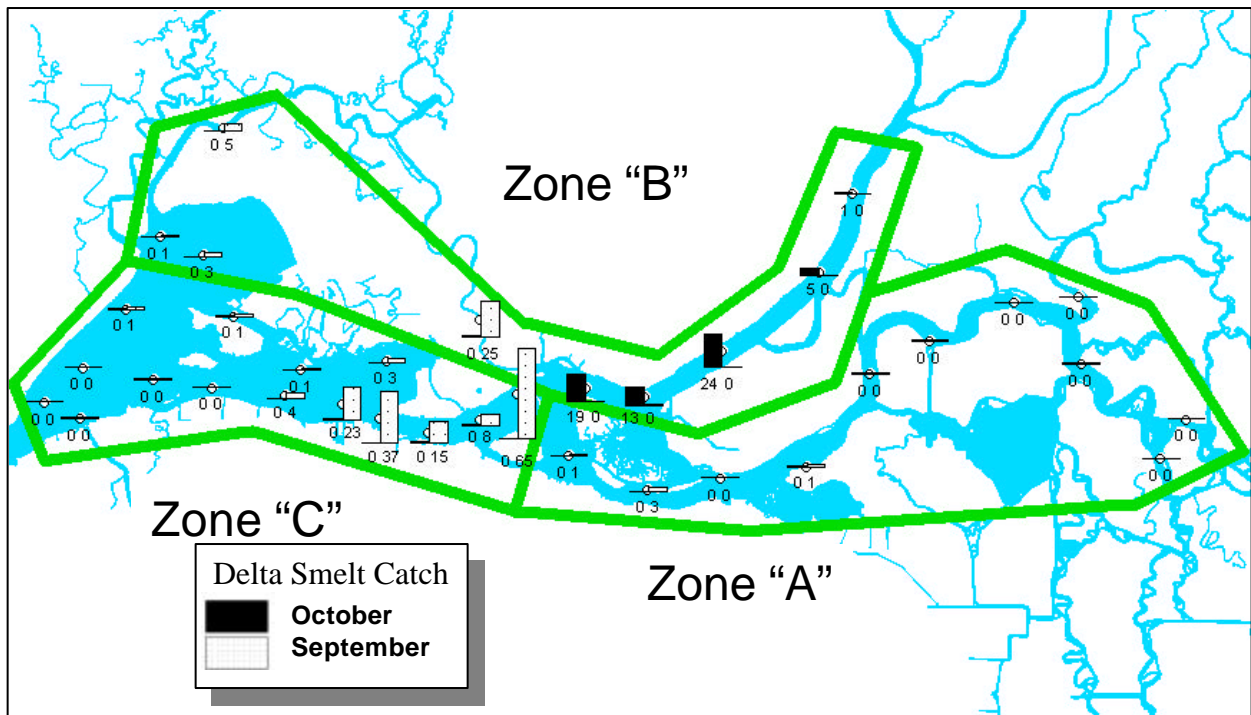
The annual index will be calculated at the end of December. The November index was 56 October index was 126 and the September index was 429.

The recovery index is calculated using a subset of the MWT sampling stations and includes only the October and September raw catches. The year 2000 recovery index is 265. Recovery criteria indicates the index must be above 239 for 2 out of five years, the 1999 recovery index was 322. The current five year span includes 1998 which had a recovery index of 169.

The distribution criteria for recovery was also met for year 2000 with a total of 5 fish being collected between the two surveys at 3 out of 11 zone "A" stations.

Catch and distribution of the delta smelt for the recovery period are shown below.

Distribution of Delta Smelt from Recovery Stations



Delta Smelt Recovery Index

Year	Distribution Criteria			Abundance Criteria	
	North Central Delta	Sacramento River and Montezuma Slough	Suisun Bay	Recovery Index	2yr average
Criteria	2 of 11	5 of 9	6 of 15		
1967	2	8	6	139	na
1968	8	6	9	251	195
1969	0	7	11	128	190
1970	7	8	12	589	359
1971	8	7	13	352	471
1972	9	8	12	551	452
1973	4	9	9	305	na
1974	Not sampled				
1975	5	5	12	239	272
1976	2	5	2	22	131
1977	5	5	0	146	84
1978	0	6	11	108	127
1979	Not sampled				
1980	3	8	10	312	na
1981	0	6	8	78	195
1982	1	6	6	37	58
1983	0	4	5	17	27
1984	0	3	9	51	34
1985	0	3	2	29	40
1986	1	5	10	70	50
1987	1	4	1	72	71
1988	0	3	2	67	70
1989	4	5	6	76	72
1990	0	6	4	81	79
1991	3	6	4	171	126
1992	1	5	0	26	99
1993	4	6	12	400	213
1994	1	5	1	19	210
1995	1	7	14	252	136
1996	2	4	8	28	140
1997	1	4	3	62	45
1998	0	7	12	169	116
1999	5	7	9	322	246
2000	3	9	10	265	294
2001					
2002					

Abundance Criteria:

Delta smelt abundance must meet or exceed 239 in 2 out of 5 years and the 2-year running average must never fall below 84

If any of these conditions are not met, the five year recovery period will start again.

Distribution Criteria:

- 1) site criteria must be met in all zones 2 out of 5 years
- 2) in at least two zones in 1 of the remaining 3 years
- 3) in at least one zone for the remaining 2 years.

Delta Smelt Fall Midwater Trawl Abundance Index

